10/659126

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=> file uspatall caplus japio
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'USPATFULL' ENTERED AT 17:02:14 ON 30 SEP 2004
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FILE 'USPAT2' ENTERED AT 17:02:14 ON 30 SEP 2004
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FILE 'CAPLUS' ENTERED AT 17:02:14 ON 30 SEP 2004
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FILE 'JAPIO' ENTERED AT 17:02:14 ON 30 SEP 2004
COPYRIGHT (C) 2004 Japanese Patent Office (JPO)- JAPIO

=> s gas phase (2a)polymer?
L1          7187 GAS PHASE (2A) POLYMER?

=> s (feed? or monomer#)(5a)(angular(1w)(velocity or motion or movement))
L2           654 (FEED? OR MONOMER#)(5A)(ANGULAR(1W)(VELOCITY OR MOTION OR MOVEME
                 NT))

=> s l1 and l2
L3             1 L1 AND L2

=> d l3 1 ibib abs

L3   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2004:354695  CAPLUS
DOCUMENT NUMBER:          140:357903
TITLE:                    Inlet distribution device for upflow polymerization
                          reactors and polymerization
INVENTOR(S):              Muldowney, Gregory P.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 9 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.            KIND   DATE        APPLICATION NO.          DATE
     ---------------       ----   --------    --------------------     --------
     US 2004082739          A1    20040429    US 2003-659126           20030910
     WO 2004037404          A1    20040506    WO 2003-US28389          20030910
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
             GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:                          US 2002-420996P     P  20021024
AB   A polymerization process includes passing a feed stream including liquid and
gas
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through a feed stream inlet disposed next to an upflow polymerization reactor, passing the feed stream through a member configured to impart an **angular velocity** to the **feed** stream and entrain the liquid in the gas, and contacting the feed stream with a catalyst to polymerize the feed stream. The upflow polymerization reactor includes a housing having a lower region and an upper region, the upper region and lower region being separated by a catalyst bed, a feed stream inlet disposed next to the lower region of the housing configured to pass a feed stream through comprising liquid and gas, a fluid outlet disposed next to the upper region of the housing, and a member mounted in the housing between the feed stream inlet and the catalyst bed having many apertures positioned at an angle of 0-90° from horizontal.

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FILE 'USPATFULL, USPAT2, CAPLUS, JAPIO' ENTERED AT 17:02:14 ON 30 SEP 2004
L1 7187 S GAS PHASE (2A) POLYMER?
L2 654 S (FEED? OR MONOMER#) (5A) (ANGULAR (1W) (VELOCITY OR MOTION OR MOV
L3 1 S L1 AND L2

=> s (condens? mode) (4a) polymer?
3 FILES SEARCHED...
L4 130 (CONDENS? MODE) (4A) POLYMER?

=> s l4 and l2
L5 0 L4 AND L2

=> s (ethylene or olefin) (3a) polymer?
L6 188193 (ETHYLENE OR OLEFIN) (3A) POLYMER?

=> s l6 and l2
L7 4 L6 AND L2

=> d l7 1-4 ibib abs

L7 ANSWER 1 OF 4 USPATFULL on STN
ACCESSION NUMBER: 2004:108337 USPATFULL
TITLE: Inlet distribution device for upflow polymerization reactors
INVENTOR(S): Muldowney, Gregory P., Glen Mills, PA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004082739	A1	20040429	
APPLICATION INFO.:	US 2003-659126	A1	20030910	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-420996P	20021024	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ExxonMobil Chemical Company, Law Technology, P.O. Box 2149, Baytown, TX, 77522-2149
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 489
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A polymerization process and polymerization reactor are provided. For

example, a polymerization process is described, including passing a feed stream including liquid and gas through a feed stream inlet disposed proximate an upflow polymerization reactor, passing the feed stream through a member configured to impart an **angular velocity** to the **feed** stream and entrain the liquid in the gas, and contacting the feed stream with a catalyst to polymerize the feed stream. The upflow polymerization reactor includes a housing having a lower region and an upper region, the upper region and lower region being separated by a catalyst bed, a feed stream inlet disposed proximate the lower region of the housing configured to pass a feed stream therethrough comprising liquid and gas, a fluid outlet disposed proximate the upper region of the housing, and a member mounted in the housing between the feed stream inlet and the catalyst bed having a plurality of apertures positioned at an angle of greater than about 0 degrees and less than about 90 degrees from horizontal.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 2 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2002:208975 USPATFULL
TITLE: Method and apparatus for crosslinking individualized cellulose fibers
INVENTOR(S): Graef, Peter A., Tacoma, WA, United States
Elston, Colin, Gig Harbor, WA, United States
Olmstead, Fred E., Tacoma, WA, United States
Bolstad, Clifford R., Milton, WA, United States
Bowns, Mark W., Auburn, WA, United States
Hunter, Frank R., Bellevue, WA, United States
Carney, Allan R., Puyallup, WA, United States
PATENT ASSIGNEE(S): Weyerhaeuser, Federal Way, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6436231	B1	20020820
APPLICATION INFO.:	US 1995-509401		19950731 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1992-820323, filed on 13 Jan 1992, now patented, Pat. No. US 5437418
Continuation-in-part of Ser. No. US 1991-665761, filed on 7 Mar 1991, now patented, Pat. No. US 5252275
Continuation-in-part of Ser. No. US 1990-607268, filed on 31 Oct 1990, now abandoned Continuation-in-part of Ser. No. US 1989-395208, filed on 17 Aug 1989, now patented, Pat. No. US 5225047 Continuation-in-part of Ser. No. US 1988-284885, filed on 15 Dec 1988, now abandoned Continuation-in-part of Ser. No. US 1987-140922, filed on 28 Dec 1987, now abandoned Continuation-in-part of Ser. No. US 1987-4729, filed on 20 Jan 1987, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Lamb, Brenda A.
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 1555
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An apparatus is disclosed for preparing a quantity of individual treated fibers from one or more fiber mats. The apparatus comprises a fiber treatment zone, and a conveyor for conveying each mat through the fiber treatment zone. In the treatment zone each mat is impregnated by an applicator with a treatment material, such as a crosslinking substance, and conveyed directly to an attrition device. The attrition device fiberizes the mats to form a fiber output having a low nit level, such

as no more than about three, and a dryer both dries the fiber output and cures the crosslinking substance. The fiberizer is configured to minimize the accumulation of fiber at locations therein. Fiber is transported from the attrition device to the dryer at a high velocity under reduced pressure to promote drying. A heated retention bin is provided after drying to increase curing time in the system. A thermobonding agent may be added to the dried and cured fibers to enhance the wet strength of webs made from the fiber.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 3 OF 4 USPATFULL on STN

ACCESSION NUMBER: 95:68651 USPATFULL

TITLE: Apparatus for crosslinking individualized cellulose fibers

INVENTOR(S): Graef, Peter A., Tacoma, WA, United States
Elston, Colin, Gig Harbor, WA, United States
Olmstead, Fred E., Tacoma, WA, United States
Bolstad, Clifford R., Milton, WA, United States
Bowns, Mark W., Auburn, WA, United States
Hunter, Frank R., Bellevue, WA, United States
Carney, Allan R., Puyallup, WA, United States

PATENT ASSIGNEE(S): Weyerhaeuser Company, Tacoma, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5437418		19950801	
APPLICATION INFO.:	US 1992-820323		19920113	(7)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1991-665761, filed on 7 Mar 1991, now patented, Pat. No. US 5252275 And a continuation-in-part of Ser. No. US 1990-607268, filed on 31 Oct 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-395208, filed on 17 Aug 1989, now patented, Pat. No. US 5225047 which is a continuation-in-part of Ser. No. US 1988-284885, filed on 15 Dec 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-140922, filed on 28 Dec 1987, now abandoned which is a continuation-in-part of Ser. No. US 1987-4729, filed on 20 Jan 1987, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Eley, Timothy V.
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 1459
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An apparatus is disclosed for preparing a quantity of individual treated fibers from one or more fiber mats. The apparatus comprises a fiber treatment zone, and a conveyor for conveying each mat through the fiber treatment zone. In the treatment zone each mat is impregnated by an applicator with a treatment material, such as a crosslinking substance, and conveyed directly to an attrition device. The attrition device fiberizes the mats to form a fiber output having a low nit level, such as no more than about three, and a dryer both dries the fiber output and cures the crosslinking substance. The fiberizer is configured to minimize the accumulation of fiber at locations therein. Fiber is transported from the attrition device to the dryer at a high velocity under reduced pressure to promote drying. A heated retention bin is provided after drying to increase curing time in the system. A thermobonding agent may be added to the dried and cured fibers to enhance the wet strength of webs made from the fiber.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:354695 CAPLUS
DOCUMENT NUMBER: 140:357903
TITLE: Inlet distribution device for upflow polymerization reactors and polymerization
INVENTOR(S): Muldowney, Gregory P.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004082739	A1	20040429	US 2003-659126	20030910
WO 2004037404	A1	20040506	WO 2003-US28389	20030910

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-420996P P 20021024

AB A polymerization process includes passing a feed stream including liquid and gas through a feed stream inlet disposed next to an upflow polymerization reactor, passing the feed stream through a member configured to impart an **angular velocity** to the **feed** stream and entrain the liquid in the gas, and contacting the feed stream with a catalyst to polymerize the feed stream. The upflow polymerization reactor includes a housing having a lower region and an upper region, the upper region and lower region being separated by a catalyst bed, a feed stream inlet disposed next to the lower region of the housing configured to pass a feed stream through comprising liquid and gas, a fluid outlet disposed next to the upper region of the housing, and a member mounted in the housing between the feed stream inlet and the catalyst bed having many apertures positioned at an angle of 0-90° from horizontal.

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FILE 'USPATFULL, USPAT2, CAPLUS, JAPIO' ENTERED AT 17:02:14 ON 30 SEP 2004

L1	7187	S	GAS PHASE (2A) POLYMER?
L2	654	S	(FEED? OR MONOMER#) (5A) (ANGULAR (1W) (VELOCITY OR MOTION OR MOV
L3	1	S	L1 AND L2
L4	130	S	(CONDENS? MODE) (4A) POLYMER?
L5	0	S	L4 AND L2
L6	188193	S	(ETHYLENE OR OLEFIN) (3A) POLYMER?
L7	4	S	L6 AND L2

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	54.76	54.97

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.40	-1.40

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